

I CLAIM AS MY INVENTION:

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1. A device for navigating documents connected by links comprising:
a computer which comprises a graphical display, an input device, and a processor;

said computer operating according to a graphical display program which generates images on said graphical display; and

said computer operating according to a navigation program which identifies a measure of similarity of a starting document to a plurality of other documents and that utilizes said graphical display program to produce and display respective symbols of said other documents related to said starting document, said graphical display program also producing respective characteristics given to said respective symbols indicating a degree of similarity of said other documents to said starting document according to said measure of similarity.

2. The device of claim 1 further comprising a storage area which holds characteristic vectors, each extracted from respective said documents, said characteristic vectors being utilized in calculations to produce said measure of similarity without referring back to respective said documents.

3. The device of claim 2 wherein said storage area holds a quantity of said characteristic vectors, wherein said quantity and selection of said documents is determined both by predefined limiting criteria and by tracing said links within said documents.

4. The device of claim 1 wherein said measure of similarity is determined by a weighted function over the frequencies of words in common in said documents to be compared.

5. The device of claim 1 wherein said symbol configurations represent said degree of similarity.

6. The device of claim 5 wherein said symbol configurations utilize color to represent said degree of similarity.

~~7. The device of claim 5 wherein the relative arrangement of said symbols is modified such that the distance between any said symbol representing any said other document and said symbol representing said starting document is inversely related to said measure of similarity.~~

8. The device of claim 1 wherein said input device is utilized by an individual to select said symbol which determines said starting document.

9. The device of claim 1 wherein said input device is utilized by an individual to generate a selection of words wherein said starting document is determined by a maximum frequency of said selection of words within said documents.

10. A method of displaying documents connected by links on a computer device comprising a graphical display, an input device, and a processor, wherein said documents are represented on said graphical display by respective symbols and symbol characteristics, comprising the steps of:

choosing one document from a universe of documents as a starting document;

determining an operative group of said documents based on said starting document;

calculating a measure of similarity between said starting document and each remaining document from said operative group; and

(displaying respective symbols and symbol characteristics of each remaining document from said operative group) said symbol characteristics indicating a degree of similarity based on said measure of similarity.

11. The method of claim 10 wherein said step of calculating said measure of similarity is comprised of the steps of:

generating characteristic vectors from each of said documents;

storing said characteristic vectors in a storage area in said computer device; and

utilizing said characteristic vectors in calculating said measure of similarity without referring back to respective said documents.

12. The method of claim 10 wherein said step of determining said operative group of documents is comprised of the steps of:

tracing said links within said starting document to find and acquire newly found documents; and

iteratively tracing said links within said newly found documents to find and acquire additional newly found documents according to a predefined limiting criteria.

13. The method of claim 10 wherein said measure of similarity is determined by a weighted function over the frequencies of words in common between said starting document and said remaining documents within said operative group.

14. The method of claim 10 wherein said step of displaying respective symbols and symbol characteristics comprises the steps of:

choosing a color to represent said degree of similarity; and

displaying said symbols in the chosen color.

15. The method of claim 10 wherein said step of displaying respective symbols and symbol characteristics comprises the steps of:

calculating a physical display location at a distance away from said symbol of said starting document which is inversely related to said measure of similarity for each said remaining document in said operative group; and

displaying each said remaining document in said operative group at said calculated physical display location.

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determining a starting document from a previously determined operative group based on a calculation of a maximum frequency of said selection of words within a document within said operative group.